For Immediate Release
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Below is a statement from Travis Breaux of the USACM Council on the White House review of “Big Data” based on extended comments to the Office of Science and technology Policy

“The rise of big data highlights tensions that have existed in U.S. efforts to protect consumer privacy and limit government use of data. If big data trends continue as we expect to focus on discovering new knowledge from larger and richer collections of data, new tools and processes for protecting and securing the data and insights gleaned from this information are needed to augment the protections currently available.

“The more that we make decisions which depend on big data, the more important it is that we understand the provenance and accuracy of this data. An important tool for this application is to provide consumers with the ability to check that collected data is indeed accurate, and to allow consumers to correct or dispute inaccuracies.

“Tracking the flow of data will also become more important as it will likely change hands more frequently. Ensuring that the data remains accurate, secure and uncorrupted would benefit from a sustained effort to develop approaches, technology and standards for systematic tracking of data provenance and metadata through research funding and adoption of the Fair Information Practice Principles (FIPPs). An important challenge to applying the FIPPs to big data is the need for government agencies to increase coordination on privacy as data changes hands or is made available to third parties.

“Improving the outcomes or productivity of big data use would benefit from lessons learned in large archival efforts to date (e.g. libraries, music). These include standardization of data formats and incentives to make data available for public benefit (e.g. medical research).

“Technology trends that affect big data collection, storage, analysis and use increasingly face the challenges of data de-identification and re-identification, where further research will be needed as well as evaluating existing research results that have yet to be widely adopted. Novel techniques are also needed to enable consumers to express their privacy preferences and computer security setup tradeoffs that present clear options for informed consent.

“Moving forward, policies in big data will need to be flexible to account for the rapid change of what is the state of the art. They should be as technology-neutral as possible. Policies can also help to encourage needed infrastructure, including: inexpensive, yet secure repositories for collected data, flexible and usable privacy settings for consumers, and additional privacy risk controls that system developers can use to reduce these risks to consumers early in the design of their systems.”

Travis Breaux is Chair of the U.S. Public Policy Council (USACM) Security and Privacy Committee and Assistant Professor of Computer Science at Carnegie Mellon University.

Read USACM’s public comments to the Office of Science and Technology Policy at http://usacm.acm.org/images/documents/BigDataOSTPfinal.pdf

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